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     FILE 'REGISTRY' ENTERED AT 15:03:11 ON 06 MAY 2009
L10        74890 S [GXA][SXATV][SX][FXWY][LXAVF][SXAGTV]/SQSP

     FILE 'HCAPLUS' ENTERED AT 15:05:16 ON 06 MAY 2009

     FILE 'REGISTRY' ENTERED AT 15:08:45 ON 06 MAY 2009

     FILE 'REGISTRY' ENTERED AT 15:09:01 ON 06 MAY 2009
L11          761 S GSSFLS/SQSP
L12        74129 S L10 NOT L11
L35           29 S L12 AND GHRELIN

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YOU HAVE REQUESTED DATA FROM 10 ANSWERS - CONTINUE? Y/(N):y


L35  ANSWER 20 OF 29  HCAPLUS  COPYRIGHT 2009 ACS on STN
AN   2005:182920  HCAPLUS
DN   142:258503
TI   Secreted polypeptide species in human plasma, detection assays for smaller
     proteins and tryptic peptides, and expression profiles useful for disease
     diagnosis
IN   Argoud-puy, Guilaine; Bederr, Nassima; Bougueleret, Lydie; Cusin,
     Isabelle; Mahe, Eve; Niknejad, Anne; Reffas, Samia; Rose, Keith; Saudrais,
     Cedric; Scherer, Andreas; Papoian, Ruben; Dengler, Uwe Jochen; Croft,
     Laurence James
PA   Genova Ltd., Bermuda; Novartis Ag; Novartis Pharma GmbH
SO   PCT Int. Appl., 284 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   WO 2005019825        A2    20050303    WO 2004-EP9323          20040819
     WO 2005019825        A3    20050811
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     EP 1658502           A2    20060524    EP 2004-764307          20040819
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     JP 2007502971        T     20070215    JP 2006-523609          20040819
PRAI US 2003-496966P      P     20030820
     WO 2004-EP9323       W     20040819
RE.CNT  2     THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB   The invention relates to polypeptide species secreted in human plasma,
     isolated polynucleotides encoding such polypeptides, polymorphic variants
     thereof, and the use of said nucleic acids and polypeptides or compns.
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thereof for detection assays and disease diagnosis. An industrial-scale method, involving sample pooling, is detailed for the anal. of smaller proteins (mol. weight less than about 40 kDa and mostly under 20 kDa),a nd thousands of peptides resulting from polypeptides can be identified from a single pool. Low abundance proteins such as leptin and ***ghrelin*** and peptides such as bradykinin, were clearly identified. By identifying the actual plasma polypeptide species, differences in mRNA processing and splicing, translation rate, mRNA stability, and posttranslational modifications are revealed, and plasma localization points to a novel, previously unknown function for the polypeptides of the invention. Peptides corresponding to 3 specific human plasma polypeptides (HPP) were identified and selected for functional characterization: esophageal cancer-related gene 2 (ECRG2), thymosin β4, and pancreastatin. Treatment of mice with these three HPP species resulted in gene expression profiles showing that these proteins would be useful in diagnosis treatment of cancer or hyperplasia-associated conditions, neurodegeneration or ion balance-associated diseases, and diseases associated with dysregulated serum glucose (e.g., diabetes) or metabolic disorders (e.g., amyloidosis).

IT 25422-31-5, Fibrinopeptide A (human) 63942-59-6 64470-79-7
77642-24-1, Thymosin β4 93265-50-0 93265-51-1 93265-52-2
93265-53-3 93265-61-3 93265-62-4 93265-63-5 93265-70-4
93265-79-3 93265-80-6 93285-67-7 104360-70-5 105192-56-1
105192-57-2 105192-58-3 110326-75-5 115643-69-1 117148-67-1,
Pancreastatin 122759-61-9 127626-59-9 147687-58-9 152551-82-1
152572-70-8 155212-13-8 157108-26-4 177792-20-0 177792-25-5
177792-42-6 177792-45-9 177792-46-0 ***177792-75-5***
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357942-39-3 357942-40-6 357942-77-9 357942-78-0 357942-79-1
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363130-87-4 363130-88-5 363132-16-5 363132-17-6 363132-18-7
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521940-52-3 532931-97-8 532931-99-0 543713-59-3 606921-46-4
606921-47-5 705968-57-6 705968-75-8 705968-97-4 738594-51-9
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776304-63-3 776304-64-4 776304-65-5 776304-67-7 776304-69-9
776304-71-3 776304-73-5 776304-75-7 776304-77-9 776304-87-1
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RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(secreted polypeptide species in human plasma, detection assays for smaller proteins and tryptic peptides, and expression profiles useful for disease diagnosis)

IT 845824-31-9 845824-32-0 845824-33-1 845824-34-2 845824-35-3
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845824-51-3 845824-52-4 845824-53-5 845824-54-6 845824-55-7
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845824-61-5 845824-62-6 845824-63-7 845824-64-8 845824-65-9
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845824-71-7 845824-72-8 845824-73-9 845824-74-0 845824-75-1
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845824-81-9 845824-82-0 845824-83-1 845824-84-2 845824-85-3
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845855-91-6 845855-92-7 845855-93-8 845855-94-9
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(secreted polypeptide species in human plasma, detection assays for smaller proteins and tryptic peptides, and expression profiles useful for disease diagnosis)

L35 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:494909 HCAPLUS
DN 141:154237
TI In vitro and in vivo effects of ***ghrelin*** on luteinizing hormone and growth hormone release in goldfish
AU Unniappan, Suraj; Peter, Richard E.
CS Department of Biological Sciences, University of Alberta, Edmonton, AB, T6G 2E9, Can.
SO American Journal of Physiology (2004), 286(6, Pt. 2), R1093-R1101

CODEN: AJPHAP; ISSN: 0002-9513
PB American Physiological Society
DT Journal
LA English
RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI In vitro and in vivo effects of ***ghrelin*** on luteinizing hormone and growth hormone release in goldfish
AB The authors studied the in vitro and in vivo effects of octanoylated goldfish ***ghrelin*** peptides (gGRL-19 and gGRL-12) on LH and growth hormone (GH) release in goldfish. GGRL-19 and gGRL-12 at picomolar doses stimulated LH and GH release from dispersed goldfish pituitary cells in perifusion and static incubation. Incubation of pituitary cells for 2 h with 10 nM gGRL-12 and 1 or 10 nM gGRL-19 increased LH-β mRNA expression, whereas only 10 nM gGRL-19 increased GH mRNA expression. Somatostatin-14 abolished the stimulatory effects of ***ghrelin*** on GH release from dispersed pituitary cells in perifusion and static culture. The GH secretagogue receptor antagonist d-Lys3-GHRP-6 inhibited the ***ghrelin***-induced LH release, whereas no effects were found on stimulation of GH release by ***ghrelin***. Intracerebroventricular injection of 1 ng/g body wt of gGRL-19 or i.p. injection of 100 ng/g body wt of gGRL-19 increased serum LH levels at 60 min after injection, whereas significant increases in GH levels were found at 15 and 30 min after these treatments. The authors' results indicate that, in addition to its potent stimulatory actions on GH release, goldfish ***ghrelin*** peptides have the novel function of stimulating LH release in goldfish.
ST goldfish ***ghrelin*** LH GH
IT Growth hormone secretagogue receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(1a; in vitro and in vivo effects of ***ghrelin*** on LH and growth hormone release in goldfish)
IT Carassius auratus
Pituitary gland
(in vitro and in vivo effects of ***ghrelin*** on LH and growth hormone release in goldfish)
IT 9002-67-9, Luteinizing hormone 9002-72-6, Growth hormone 51110-01-1, Somatostatin-14 ***693224-54-3*** ***693224-55-4***
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(in vitro and in vivo effects of ***ghrelin*** on LH and growth hormone release in goldfish)

L35 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:232125 HCAPLUS
DN 140:420998
TI Orexigenic Actions of ***Ghrelin*** in Goldfish: Feeding-Induced Changes in Brain and Gut mRNA Expression and Serum Levels, and Responses to Central and Peripheral Injections
AU Unniappan, Suraj; Canosa, Luis Fabian; Peter, Richard E.
CS Department of Biological Sciences, University of Alberta, Edmonton, AB, Can.
SO Neuroendocrinology (2004), 79(2), 100-108
CODEN: NUNDAJ; ISSN: 0028-3835
PB S. Karger AG
DT Journal
LA English
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Orexigenic Actions of ***Ghrelin*** in Goldfish: Feeding-Induced

Changes in Brain and Gut mRNA Expression and Serum Levels, and Responses to Central and Peripheral Injections

AB In this study, the authors examined the preprandial, postprandial and starvation-induced changes in the preproghrelin mRNA expression and serum ***ghrelin*** levels, and the effects of intracerebroventricular and i.p. administration of ***ghrelin*** on food intake in goldfish (Carassius auratus). Slot blot anal. revealed a significant postprandial decrease in preproghrelin mRNA expression in the hypothalamus (1 and 3 h after feeding) and gut (3 h after feeding). A similar postprandial decrease (1 and 3 h after feeding) in serum ***ghrelin*** levels was also detected. In the fish that were unfed at the regular feeding time, the hypothalamic preproghrelin mRNA expression and the serum ***ghrelin*** levels remained unchanged, while the preproghrelin mRNA expression in the gut decreased 3 h after the regular feeding time. Starvation increased preproghrelin mRNA expression in the hypothalamus and gut on the 7th day. Serum ***ghrelin*** levels were significantly elevated on days 3 and 5 of starvation. Intracerebroventricular injections of n-octanoylated ***ghrelin***-like peptides (gGRL[1-12]) (10 ng/g) and human ***ghrelin*** (1 and 10 ng/g) and i.p. injections of n-octanoylated gGRL[1-12] (10 ng/g), gGRL[1-19] (100 ng/g) and human ***ghrelin*** (10 and 100 ng/g) stimulated food intake in goldfish. The patterns of synthesis, secretion and actions indicate that ***ghrelin*** is an orexigen in goldfish.

ST orexigenic ***ghrelin*** goldfish Carassius; preproghrelin mRNA digestive tract hypothalamus goldfish feeding starvation; appetite ***ghrelin*** goldfish

IT Blood serum
(***ghrelin*** of blood serum of goldfish in response to feeding and starvation)

IT Appetite
(orexigenic action of ***ghrelin*** in goldfish)

IT Starvation, animal
(starvation effect on blood ***ghrelin*** and digestive tract and hypothalamus preproghrelin mRNA in goldfish)

IT 258279-04-8, Human ***ghrelin*** ***693224-54-3*** ***693224-55-4***
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(appetite response to ***ghrelin*** intracerebroventricular administration in goldfish)

IT 304853-26-7, ***Ghrelin***
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(orexigenic actions of ***ghrelin*** in goldfish)

IT 322637-19-4, ***Ghrelin***, prepro-
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preproghrelin mRNA of digestive tract and hypothalamus in goldfish in response to feeding and starvation)

L35 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2004:80708 HCAPLUS
DN 140:140069
TI Synthesis and therapeutic uses of ***ghrelin*** analogs
IN Dong, Zheng Xin; Shen, Yeelana
PA Scientifiques (S.C.R.A.S.) Societe De Conseils De Recherches Et D'Application, Fr.
SO PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2004009616 | A2 | 20040129 | WO 2003-US22925 | 20030723 |
| | WO 2004009616 | A3 | 20060209 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2491946 | A1 | 20040129 | CA 2003-2491946 | 20030723 |
| | AU 2003254119 | A1 | 20040209 | AU 2003-254119 | 20030723 |
| | AU 2003254119 | B2 | 20071129 | | |
| | EP 1578778 | A2 | 20050928 | EP 2003-765930 | 20030723 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | JP 2006515271 | T | 20060525 | JP 2004-523304 | 20030723 |
| | CN 1832753 | A | 20060913 | CN 2003-817446 | 20030723 |
| | BR 2003012871 | A | 20070710 | BR 2003-12871 | 20030723 |
| | RU 2315059 | C2 | 20080120 | RU 2005-104841 | 20030723 |
| | NO 2005000083 | A | 20050323 | NO 2005-83 | 20050106 |
| | MX 2005000908 | A | 20050722 | MX 2005-908 | 20050121 |
| | US 20050272648 | A1 | 20051208 | US 2005-522398 | 20050121 |
| | IN 2005KN00153 | A | 20060609 | IN 2005-KN153 | 20050208 |
| PRAI | US 2002-397834P | P | 20020723 | | |
| | US 2002-427488P | P | 20021119 | | |
| | WO 2003-US22925 | W | 20030723 | | |

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Synthesis and therapeutic uses of ***ghrelin*** analogs

AB The invention comprises the synthesis of peptidyl ***ghrelin*** analogs that possess agonist or antagonist activity toward growth hormone secretagogue receptor, along with therapeutic and non-therapeutic uses thereof.

ST ***ghrelin*** analogs synthesis GHS receptor wt gain loss

IT AIDS (disease)
Anorexia
Bulimia
Cachexia
Chemotherapy
Dialysis
Immobilization, animal
Radiotherapy
(-associated weight loss; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT Amino acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(N-[(fluorenylmethoxy)carbonyl]; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT Growth hormone secretagogue receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(binding affinity for ***ghrelin*** analogs; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT Cachexia
(cancerous, -associated weight loss; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Muscle
(cardiac, apoptosis, inhibition of; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Eye, disease
(diabetic retinopathy; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Aging, animal
(elderly, -associated weight loss; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Blood vessel
(endothelium, apoptosis, inhibition of; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Calculi, biliary
Hypertension
Neoplasm
Osteoarthritis
(excessive weight contributing to; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Dyslipidemia
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(excessive weight contributing to; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Heart, disease
(failure, chronic; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Drug screening
(for compds. binding to a GHS receptor; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Body weight
(gain and maintenance; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Apoptosis
(inhibition of; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Body weight
(loss, accessory to another disorder; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Heart
(myocardium, apoptosis, inhibition of; synthesis and therapeutic uses of ***ghrelin*** analogs)
IT Antiarthritics
Antidiabetic agents
Antihypertensives
Antiobesity agents
Appetite
Appetite depressants
Appetite stimulants
Cardiovascular agents
Cardiovascular system, disease
Diabetes mellitus
Drug delivery systems
Human
Obesity
Sexual disorders
Wound

Wound healing
Wound healing promoters
(synthesis and therapeutic uses of ***ghrelin*** analogs)

IT Bone
(treatment to increase d.; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT Muscle
(treatment to increase mass; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT Endothelium
(vascular, apoptosis, inhibition of; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT Disease, animal
(wasting, -associated weight loss; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 161924-72-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(MBHA resin bound; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 9002-72-6, Growth hormone
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(deficiency, treatment of; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 321974-91-8 321974-93-0
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(not to be used therapeutically; synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 304853-26-7DP, ***Ghrelin***, analogs ***651048-33-8P***
***651048-34-9P*** ***651048-35-0P*** ***651048-36-1P***
***651048-37-2P*** ***651048-38-3P*** ***651048-39-4P***
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651050-66-7P 651050-67-8P 651050-68-9P 651050-69-0P 651050-70-3P
651050-71-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 651050-72-5P 651050-73-6P 651050-74-7P 651050-75-8P 651050-76-9P
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651050-82-7P 651050-83-8P 651050-84-9P 651050-85-0P 651050-86-1P
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 121-44-8, Triethylamine, reactions 143-10-2, 1-Decanethiol 2127-03-9, 2,2'-Dipyridyl disulfide 2756-85-6, 1-Amino-1-cyclohexanecarboxylic acid 4530-20-5 13139-15-6 13726-85-7 13734-34-4 13734-41-3 13836-37-8 15761-38-3 15761-39-4 23680-31-1 25024-53-7 29022-11-5, Fmoc-Gly-OH 35264-09-6 35661-39-3 35661-40-6 35661-60-0 54613-99-9 68858-20-8 71989-14-5 71989-18-9 71989-20-3 71989-26-9 71989-31-6 71989-33-8 73724-45-5 73821-97-3 83792-48-7 94744-50-0 109425-51-6 115951-16-1, 1-(tert-Butoxycarbonylamino)cyclohexanecarboxylic acid 154445-77-9 172611-74-4 177582-21-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 247900-75-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 110-89-4, Piperidine, reactions 302-01-2, Hydrazine, reactions 693-13-0, Diisopropylcarbodiimide 872-50-4, N-Methylpyrrolidone, reactions 1122-58-3, 4-(Dimethylamino)pyridine 2592-95-2, HOBt 6485-79-6, Triisopropylsilane 24424-99-5, Di-tert-butyldicarbonate 94790-37-1, HBTU 148893-10-1 164298-23-1, Tetramethylfluoroformamidinium hexafluorophosphate
RL: RGT (Reagent); RACT (Reactant or reagent)
(synthesis and therapeutic uses of ***ghrelin*** analogs)

IT 651377-52-5 651377-53-6
RL: PRP (Properties)
(unclaimed sequence; synthesis and therapeutic uses of ***ghrelin***

analogs)

L35 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2002:728364 HCAPLUS
DN 138:11970
TI Goldfish ***ghrelin***: molecular characterization of the complementary deoxyribonucleic acid, partial gene structure and evidence for its stimulatory role in food intake
AU Unniappan, Surajlal; Lin, Xinwei; Cervini, Laura; Rivier, Jean; Kaiya, Hiroyuki; Kangawa, Kenji; Peter, Richard E.
CS Department of Biological Sciences, University of Alberta, Edmonton, AB, T6G 2E9, Can.
SO Endocrinology (2002), 143(10), 4143-4146
CODEN: ENDOAO; ISSN: 0013-7227
PB Endocrine Society
DT Journal
LA English
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Goldfish ***ghrelin***: molecular characterization of the complementary deoxyribonucleic acid, partial gene structure and evidence for its stimulatory role in food intake
AB Complementary DNA (cDNA) encoding goldfish preproghrelin was identified using rapid amplification of the cDNA ends (RACE) and reverse transcription (RT)-polymerase chain reaction (PCR). The 490 bp cDNA encodes a 103 amino acid preproghrelin which has a 26 amino acid signal peptide region, 19 amino acid mature peptide and a 55 amino acid C-terminal peptide region. The mature peptide region of goldfish ***ghrelin*** has two putative cleavage sites and amidation signals (GRR); one after 12 amino acids and the other after 19 amino acids. The serine (S) in the second amino acid position in the "active core" of ***ghrelin*** is substituted with threonine (T). The goldfish ***ghrelin*** gene has four exons and three short introns and resembles the human ***ghrelin*** gene. ***Ghrelin*** mRNA (mRNA) expression was detected in the brain, pituitary, intestine, liver, spleen and gill by RT-PCR followed by Southern blot anal., and in the intestine by Northern blot. Intracerebroventricular (ICV) injection of n-octanoylated goldfish ***ghrelin*** (1-19) stimulates food intake in goldfish.
ST goldfish ***ghrelin*** protein gene cDNA sequence expression
IT Intestine
(***ghrelin*** mRNA expression in; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT Gene, animal
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(***ghrelin***, expression; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT Brain
(hindbrain, ***ghrelin*** mRNA expression in; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT Brain
(hypothalamus, ***ghrelin*** mRNA expression in; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food

intake)
IT Brain
(midbrain, ***ghrelin*** mRNA expression in; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT Carassius auratus
Protein motifs
Protein sequences
cDNA sequences
(mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT Brain
(olfactory bulb, ***ghrelin*** mRNA expression in; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT Feeding
(role of ***ghrelin*** on; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT Brain
(telencephalon, ***ghrelin*** mRNA expression in; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT ***477722-50-2*** ***477759-95-8***, ***Ghrelin***, prepro- (Carassius auratus) ***477759-96-9***, ***Ghrelin***, pro- (Carassius auratus)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT 304853-26-7, ***Ghrelin***
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)
IT 456948-64-4, GenBank AF454389
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; mol. characterization of goldfish ***ghrelin*** complementary DNA, partial gene structure and evidence for its stimulatory role in food intake)

L35 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:886171 HCAPLUS
DN 136:32165
TI ***Ghrelin*** analogs for use in screening compounds with growth hormone secretagogue receptor-activating ability and for inducing growth hormone secretion
IN Bednarek, Maria
PA Merck & Co., Inc., USA
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent

LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2001092292 | A2 | 20011206 | WO 2001-US17026 | 20010525 |
| | WO 2001092292 | A3 | 20030814 | | |
| | W: CA, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | CA 2411667 | A1 | 20011206 | CA 2001-2411667 | 20010525 |
| | EP 1353683 | A2 | 20031022 | EP 2001-939465 | 20010525 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| | JP 2004514651 | T | 20040520 | JP 2002-500904 | 20010525 |
| | US 20030186844 | A1 | 20031002 | US 2002-276392 | 20021115 |
| | US 6967237 | B2 | 20051122 | | |
| PRAI | US 2000-207920P | P | 20000530 | | |
| | WO 2001-US17026 | W | 20010525 | | |

OS MARPAT 136:32165

TI ***Ghrelin*** analogs for use in screening compounds with growth hormone secretagogue receptor-activating ability and for inducing growth hormone secretion

AB The present invention features truncated ***ghrelin*** analogs active at the growth hormone secretagogue (GHS) receptor. ***Ghrelin*** is a naturally occurring modified peptide. The analogs can bind to the GHS receptor and, preferably, bring about signal transduction. ***Ghrelin*** analogs have a variety of different uses including being used as a research tool and being used therapeutically. Also claimed are the use of ***ghrelin*** analogs for the purpose of screening for compds. that have the ability to bind to and activate GHS receptors, and analogs that can induce growth hormone secretion.

ST ***ghrelin*** analog human cDNA sequence GHS receptor signaling screening

IT G protein-coupled receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(GHSR (growth hormone secretagogue receptor); ***ghrelin*** analogs for use in screening compds. with growth hormone secretagogue receptor-activating ability and for inducing growth hormone secretion)

IT Drug screening
Human
Protein sequences
Secretion (process)
Signal transduction, biological
cDNA sequences
(***ghrelin*** analogs for use in screening compds. with growth hormone secretagogue receptor-activating ability and for inducing growth hormone secretion)

IT 9002-72-6, Growth hormone
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(***ghrelin*** analogs for use in screening compds. with growth hormone secretagogue receptor-activating ability and for inducing growth hormone secretion)

IT 258279-04-8P 304853-26-7DP, ***Ghrelin***, analogs 313951-54-1P
313951-55-2P 313951-56-3P 313951-57-4P 313951-58-5P 313951-59-6P
313951-60-9P 313951-61-0P 313951-62-1P 313951-63-2P 313951-64-3P
***313951-65-4P*** 313951-66-5P ***313951-67-6P*** 313951-68-7P
313951-69-8P 313951-70-1P 313951-71-2P 313951-72-3P 313951-73-4P
313951-74-5P 313951-75-6P 313951-76-7P 313951-77-8P 313951-78-9P

313951-79-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(***ghrelin*** analogs for use in screening compds. with growth hormone secretagogue receptor-activating ability and for inducing growth hormone secretion)
IT 180425-80-3
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; ***ghrelin*** analogs for use in screening compds. with growth hormone secretagogue receptor-activating ability and for inducing growth hormone secretion)

L35 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:662512 HCAPLUS
DN 135:366876
TI Structure-Activity Relationship of ***Ghrelin***: Pharmacological Study of ***Ghrelin*** Peptides
AU Matsumoto, Masaru; Hosoda, Hiroshi; Kitajima, Yasuo; Morozumi, Naomi; Minamitake, Yoshiharu; Tanaka, Shoji; Matsuo, Hisayuki; Kojima, Masayasu; Hayashi, Yujiro; Kangawa, Kenji
CS Suntory Institute for Medicinal Research & Development, Akaiwa, Chiyoda-machi, Ohra-gun, Gunma, 370-0503, Japan
SO Biochemical and Biophysical Research Communications (2001), 287(1), 142-146
CODEN: BBRCA9; ISSN: 0006-291X
PB Academic Press
DT Journal
LA English
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Structure-Activity Relationship of ***Ghrelin***: Pharmacological Study of ***Ghrelin*** Peptides
AB ***Ghrelin***, a novel peptide purified from the stomach, is the endogenous ligand of the growth hormone secretagogue receptor. The Ser3 residue of ***ghrelin*** is modified with a lipid n-octanoic acid, a modification necessary for hormonal activity. To clarify the role of acyl modification and to identify the active core of ***ghrelin***, we examined the activities of partially digested ***ghrelin*** and synthetic ***ghrelin*** derivs. The activities confirmed that the N-terminal portion is the active core. Moreover, synthetic ***ghrelin*** derivs. demonstrated that octanoic acid is not the only modification of the Ser3 side chain to sustain the activity of ***ghrelin***; other acyl acid modifications maintained activity. Amino acid replacement of Ser3 indicated that an L-configuration of the third residue is critical for ***ghrelin*** activity. In addition, more stable ether or thioether bonds are capable of replacing the octanoyl ester bond in ***ghrelin***, advantageous for the generation of pharmaceuticals with longer stability. (c) 2001 Academic Press.
ST ***ghrelin*** structure activity
IT Structure-activity relationship
(structure-activity relationship pharmacol. study of ***ghrelin*** peptides)
IT 258279-04-8, Human ***ghrelin*** 258338-12-4, Rat ***ghrelin***
293735-04-3 304853-26-7, ***Ghrelin*** 307950-60-3 313951-77-8
321974-76-9 321974-78-1 321974-80-5 321974-82-7 321974-91-8
321974-93-0 321975-17-1 321975-27-3 321975-62-6 321975-80-8

321975-85-3 321975-86-4 321975-87-5 321975-88-6 ***321975-89-7***
321975-90-0 342046-87-1 342046-88-2 342046-89-3 342046-90-6
342046-91-7 342046-94-0 342046-96-2 342046-97-3 342046-98-4
342046-99-5 342047-04-5 374629-82-0 374629-83-1 374629-88-6
374629-89-7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(structure-activity relationship pharmacol. study of ***ghrelin*** peptides)

L35 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:311717 HCAPLUS
DN 135:602
TI Structure-activity relationships of ***ghrelin***: endogenous growth hormone secretagogue
AU Matsumoto, Masaru; Kitajima, Yasuo; Iwanami, Tatsuya; Morozumi, Naomi; Hayashi, Yujiro; Tanaka, Shoji; Minamitake, Yoshiharu; Hosoda, Hiroshi; Kojima, Masayasu; Matsuo, Hisayuki; Kangawa, Kenji
CS Institute for Medicinal R&D, Suntory Limited, Gunma, 370-0503, Japan
SO Peptide Science (2001), Volume Date 2000, 37th, 101-104
CODEN: PSCIFQ; ISSN: 1344-7661
PB Japanese Peptide Society
DT Journal
LA English
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Structure-activity relationships of ***ghrelin***: endogenous growth hormone secretagogue
AB ***Ghrelin***, an endogenous ligand for growth hormone secretagogue-receptor (GHS-R), consists of 28 amino acid residues with unique octanoyl modification at Ser3. ***Ghrelin*** derivs. were systematically synthesized to investigate the roles of acyl group, length of fatty acid, peptide length, etc. The assay using cells expressing GHS-R demonstrated that N-terminus (1-4) with hydrophobicity at the 3rd residue was essential to increase intracellular Ca2+, suggesting that it is the active core structure. Structural similarity of the derivs. to synthetic GHSs is also discussed.
ST ***ghrelin*** growth hormone secretagogue receptor binding structure activity
IT Receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(growth hormone secretagogue; structure-activity relationships of ***ghrelin*** in relation to binding affinity of ***ghrelin*** derivs. to endogenous growth hormone secretagogue receptor)
IT Structure-activity relationship
(structure-activity relationships of ***ghrelin*** in relation to binding affinity of ***ghrelin*** derivs. to endogenous growth hormone secretagogue receptor)
IT 342046-86-0
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(residue 3 of ***ghrelin***; structure-activity relationships of ***ghrelin*** in relation to binding affinity of ***ghrelin*** derivs. to endogenous growth hormone secretagogue receptor)
IT 170851-70-4P, Ipamorelin 258279-04-8P, Human ***ghrelin*** 258338-12-4P, Rat ***ghrelin*** ***313951-65-4P*** 313951-74-5P 313951-75-6P 313951-77-8P 321974-68-9P 321974-72-5P 321974-76-9P

321974-78-1P 321974-80-5P 321974-82-7P 321974-84-9P 321974-86-1P
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321975-17-1P 321975-25-1P 321975-27-3P 321975-29-5P 321975-31-9P
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321975-62-6P 321975-67-1P 321975-69-3P 321975-73-9P 321975-85-3P
342046-87-1P 342046-88-2P 342046-89-3P 342046-90-6P 342046-91-7P
***342046-92-8P*** 342046-93-9P 342046-94-0P 342046-95-1P
342046-96-2P 342046-97-3P 342046-98-4P 342046-99-5P 342047-04-5P
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(structure-activity relationships of ***ghrelin*** in relation to binding affinity of ***ghrelin*** derivs. to endogenous growth hormone secretagogue receptor)

L35 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2001:78416 HCAPLUS
DN 134:142304
TI Novel ghrelins, their encoding DNA sequences, and their use as therapeutics
IN Kangawa, Kenji; Kojima, Masayasu; Hosoda, Hiroshi; Matsuo, Hisayuki; Minamitake, Yoshiharu
PA Japan
SO PCT Int. Appl., 210 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI WO 2001007475 | A1 | 20010201 | WO 2000-JP4907 | 20000724 |
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| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CA 2380058 | A1 | 20010201 | CA 2000-2380058 | 20000724 |
| BR 2000012688 | A | 20020416 | BR 2000-12688 | 20000724 |
| EP 1197496 | A1 | 20020417 | EP 2000-946453 | 20000724 |
| EP 1197496 | B1 | 20070711 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY | | | | |
| JP 3471780 | B2 | 20031202 | JP 2001-512558 | 20000724 |
| AU 784035 | B2 | 20060119 | AU 2000-60231 | 20000724 |
| EP 1795598 | A1 | 20070613 | EP 2007-6224 | 20000724 |
| R: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| AT 366813 | T | 20070815 | AT 2000-946453 | 20000724 |
| ES 2288151 | T3 | 20080101 | ES 2000-946453 | 20000724 |
| US 7385026 | B1 | 20080610 | US 2001-959577 | 20011030 |
| KR 827973 | B1 | 20080521 | KR 2002-700758 | 20020118 |
| JP 2004000251 | A | 20040108 | JP 2003-271241 | 20030707 |
| JP 4227857 | B2 | 20090218 | | |
| AU 2006201580 | A1 | 20060518 | AU 2006-201580 | 20060413 |
| AU 2006201580 | B2 | 20090108 | | |

PRAI JP 1999-210002 A 19990723
JP 1999-338841 A 19991129
JP 2000-126623 A 20000426
AU 2000-60231 A3 20000724
EP 2000-946453 A3 20000724
JP 2001-512558 A3 20000724
WO 2000-JP4907 W 20000724

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Novel ghrelins, the natural ligands for growth hormone (GH) secretagogue receptors, and their derivs. that have ≥1 amino acid substituted with a modified amino acid or non-amino acid compound are prepared and used as a therapeutic for inducing the secretion of growth hormone. Ghrelins are also able to increase the intracellular concentration of calcium ions. An 117-amino acid ***ghrelin*** isolated from the stomach of rats contains a serine derivative (3rd residue) that is modified with n-octanoyl (C8:0) fatty acid. Ghrelins and their encoding cDNA sequences isolated from human and other animals are also shown. The structural-activity relationship of chemical synthesized ***ghrelin*** derivs. of human or rats were also described. Claimed are methods for recombinant preparation of ghrelins, antibodies to ghrelins, methods for immunoassay of ghrelins, and use of ghrelins for treating the diseases associated with growth hormone deficiency.

ST ***ghrelin*** cDNA protein sequence; structure activity
***ghrelin*** deriv; growth hormone secretagogue therapeutic

IT 213825-66-2D, O-fatty acyl derivs. 258259-89-1D, O-fatty acyl derivs.
293339-41-0D, O-fatty acyl derivs. 322483-09-0D, O-fatty acyl derivs.
322483-12-5 322483-13-6 322483-15-8, ***Ghrelin*** (cattle prepro fragment) 322483-17-0, ***Ghrelin*** (Anguilla japonica prepro)
322483-18-1, ***Ghrelin*** (Xenopus laevis prepro) 322483-19-2
322483-20-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; novel ghrelins, encoding DNA sequences, and use as therapeutics)

IT 259231-00-0P ***313951-65-4P*** 313951-75-6P 313951-77-8P
321974-68-9P 321974-70-3P 321974-72-5P 321974-74-7P 321974-76-9P
321974-78-1P 321974-80-5P 321974-82-7P 321974-84-9P 321974-86-1P
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321975-09-1P 321975-11-5P 321975-13-7P 321975-15-9P 321975-17-1P
321975-19-3P 321975-21-7P 321975-23-9P 321975-25-1P 321975-27-3P
321975-29-5P 321975-31-9P 321975-33-1P 321975-35-3P 321975-37-5P
321975-39-7P 321975-42-2P 321975-44-4P 321975-46-6P 321975-48-8P
321975-50-2P 321975-52-4P 321975-56-8P 321975-58-0P 321975-60-4P
321975-62-6P 321975-65-9P 321975-67-1P 321975-69-3P 321975-71-7P
321975-73-9P ***321975-77-3P*** 321975-80-8P 321975-82-0P
321975-84-2P 321975-85-3P 321975-86-4P 321975-87-5P 321975-88-6P
***321975-89-7P*** 321975-90-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(novel ghrelins, encoding DNA sequences, and use as therapeutics)

IT 252925-13-6 252925-14-7, DNA (human ***ghrelin*** cDNA plus flanks)
308789-38-0 322483-10-3 322483-11-4 322483-14-7 322483-16-9, DNA (cattle ***ghrelin*** cDNA fragment) 322483-21-6 322483-22-7

322483-23-8 322483-24-9
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; novel ghrelins, encoding DNA sequences, and use as therapeutics)

L35 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2009 ACS on STN
AN 2000:758603 HCAPLUS
DN 134:51509
TI Structure-Function Studies on the New Growth Hormone-Releasing Peptide, ***Ghrelin***: Minimal Sequence of ***Ghrelin*** Necessary for Activation of Growth Hormone Secretagogue Receptor 1a
AU Bednarek, Maria A.; Feighner, Scott D.; Pong, Sheng-Shung; McKee, Karen Kulju; Hreniuk, Donna L.; Silva, Maria V.; Warren, Vivien A.; Howard, Andrew D.; Van der Ploeg, Lex H. Y.; Heck, James V.
CS Departments of Medicinal Chemistry Metabolic Disorders Drug Metabolism and Membrane Biochemistry and Biophysics, Merck Research Laboratories, Rahway, NJ, 07065, USA
SO Journal of Medicinal Chemistry (2000), 43(23), 4370-4376
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Structure-Function Studies on the New Growth Hormone-Releasing Peptide, ***Ghrelin***: Minimal Sequence of ***Ghrelin*** Necessary for Activation of Growth Hormone Secretagogue Receptor 1a
AB The recently discovered growth hormone secretagogue, ***ghrelin***, is a potent agonist at the human growth hormone secretagogue receptor 1a (hGHSR1a). To elucidate structural features of this peptide necessary for efficient binding to and activation of the receptor, several analogs of ***ghrelin*** with various aliphatic or aromatic groups in the side chain of residue 3, and several short peptides derived from ***ghrelin***, were prepared and tested in a binding assay and in an assay measuring intracellular calcium elevation in HEK-293 cells expressing hGHSR1a. Bulky hydrophobic groups in the side chain of residue 3 turned out to be essential for maximum agonist activity. Also, short peptides encompassing the first 4 or 5 residues of ***ghrelin*** were found to functionally activate hGHSR1a about as efficiently as the full-length ***ghrelin***. Thus, the entire sequence of ***ghrelin*** is not necessary for activity: the Gly-Ser-Ser(n-octanoyl)-Phe segment appears to constitute the "active core" required for agonist potency at hGHSR1a.
ST ***ghrelin*** structure activity; growth hormone secretagogue receptor ***ghrelin*** structure activity
IT Structure-activity relationship
(***ghrelin*** structure-function studies and minimal sequence necessary for activation of growth hormone secretagogue receptor 1a)
IT Growth hormone-releasing hormone receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(growth hormone secretagogue receptor 1a; ***ghrelin*** structure-function studies and minimal sequence necessary for activation of growth hormone secretagogue receptor 1a)
IT 258279-04-8, ***Ghrelin*** (human) 313951-54-1 313951-55-2
313951-56-3 313951-57-4 313951-58-5 313951-59-6 313951-60-9
313951-61-0 313951-62-1 313951-63-2 313951-64-3 ***313951-65-4***

313951-66-5 ***313951-67-6*** 313951-68-7 313951-69-8
313951-70-1 313951-71-2 313951-72-3 313951-73-4 313951-74-5
313951-75-6 313951-76-7 313951-77-8 313951-78-9 313951-79-0
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(***ghrelin*** structure-function studies and minimal sequence necessary for activation of growth hormone secretagogue receptor 1a)

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                 (313951-65-4/RN)
             1 342046-92-8
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L1           2 313951-65-4 OR 342046-92-8

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RN   342046-92-8  REGISTRY
CN   L-Arginine, glycyl-L-seryl-(2S)-2-aminododecanoyl-L-phenylalanyl-L-leucyl-
     L-seryl-L-prolyl-L-α-glutamyl-L-histidyl-L-glutaminyl-L-arginyl-L-
     valyl-L-glutaminyl-L-glutaminyl-L-arginyl-L-lysyl-L-α-glutamyl-L-
     seryl-L-lysyl-L-lysyl-L-prolyl-L-prolyl-L-alanyl-L-lysyl-L-leucyl-L-
     glutaminyl-L-prolyl- (9CI)  (CA INDEX NAME)
FS   PROTEIN SEQUENCE; STEREOSEARCH
SQL  28
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 type            ------ location ------         description
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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF   C150 H253 N47 O40
SR   CA
LC   STN Files:   CA, CAPLUS
DT.CA  CAplus document type:  Journal
RL.NP  Roles from non-patents:  BIOL (Biological study); PREP (Preparation);
       PROC (Process); PRP (Properties)

Absolute stereochemistry.
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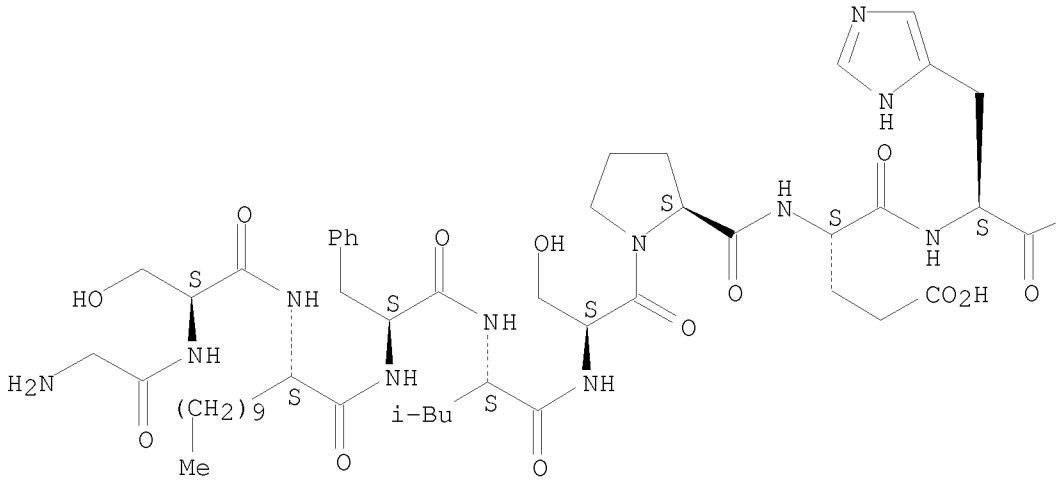

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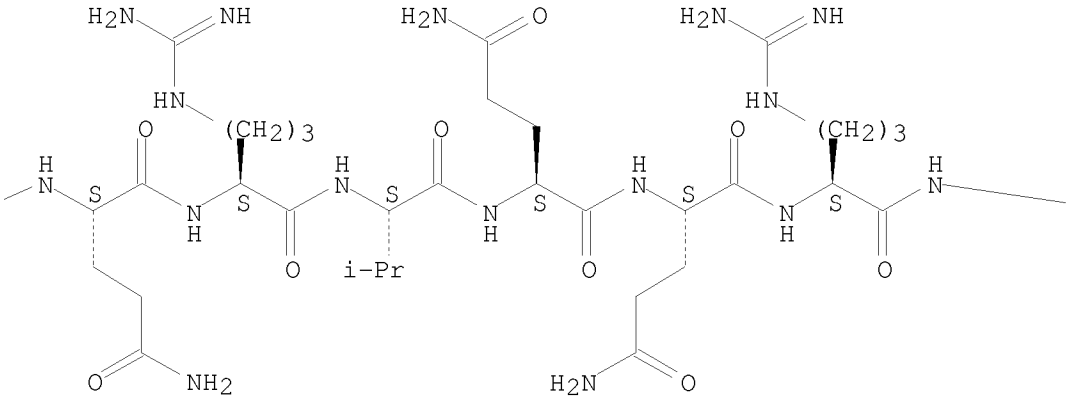

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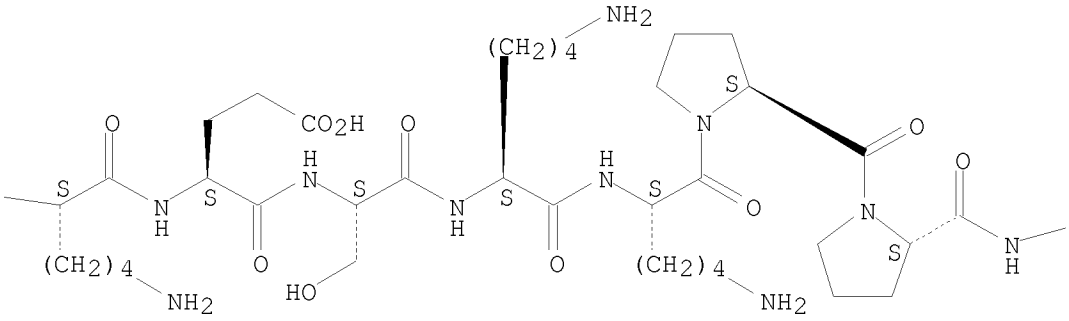
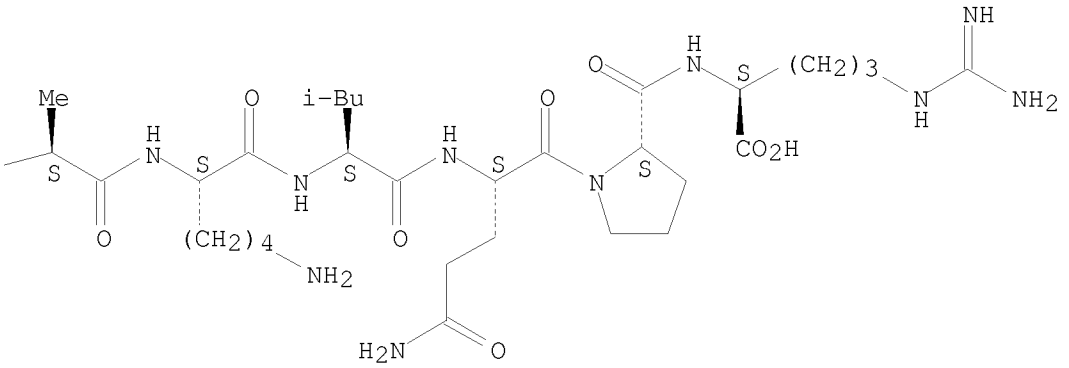


PAGE 1-D



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2009 ACS on STN
RN ***313951-65-4*** REGISTRY
CN L-Arginine, glycyl-L-seryl-3-[(1-oxooctyl)amino]-L-alanyl-L-phenylalanyl-L-leucyl-L-seryl-L-prolyl-L-α-glutamyl-L-histidyl-L-glutaminyl-L-arginyl-L-valyl-L-glutaminyl-L-glutaminyl-L-arginyl-L-lysyl-L-α-glutamyl-L-seryl-L-lysyl-L-lysyl-L-prolyl-L-prolyl-L-alanyl-L-lysyl-L-leucyl-L-glutaminyl-L-prolyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 19: PN: WO0192292 SEQID: 18 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 28
NTE modified (modifications unspecified)

| type | ------ location ------ | | description |
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| uncommon | Dpr-3 | - | - |
| modification | Dpr-3 | - | 1-oxooctyl<Oct> |

PATENT ANNOTATIONS (PNTE):

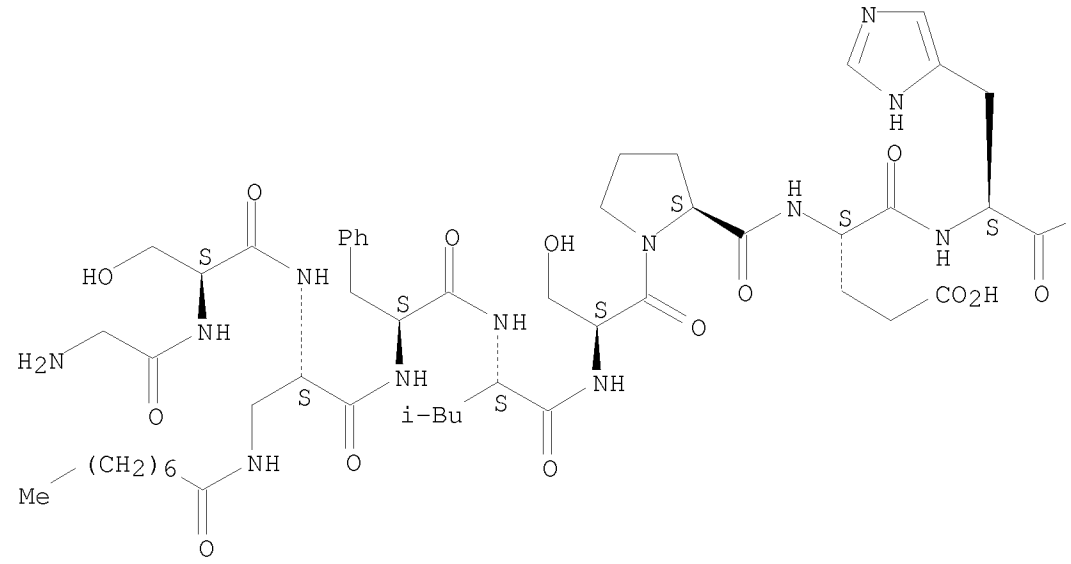
| Sequence Source | Patent Reference |
|---|---|
| Not Given | WO2001092292 claimed SEQID 18 |

SEQ 1 GSXFLSPEHQ RVQQRKESKK PPAKLQPR

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF C149 H250 N48 O41
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties)

Absolute stereochemistry.

PAGE 1-A



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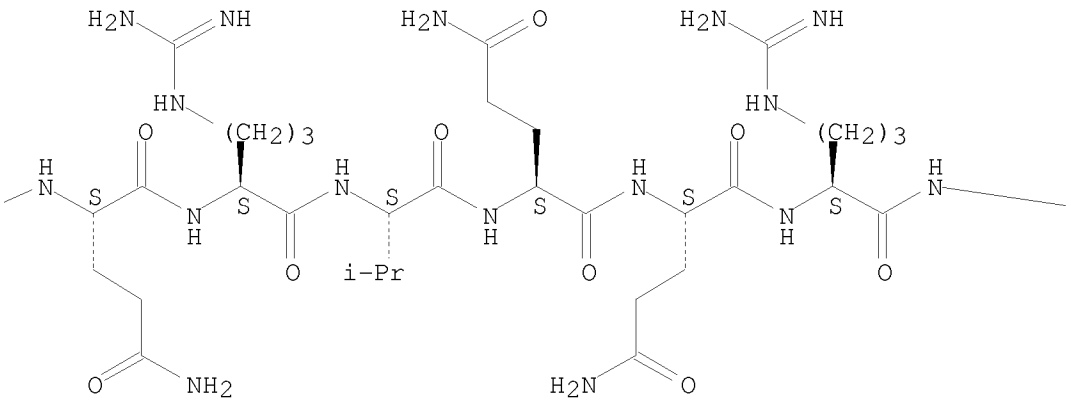

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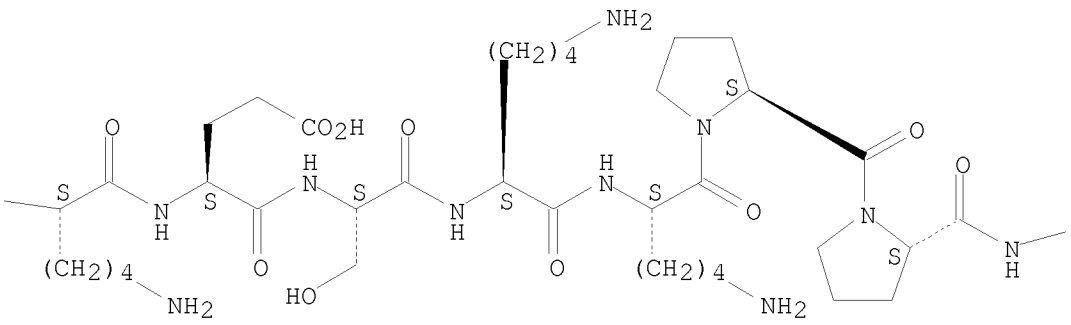

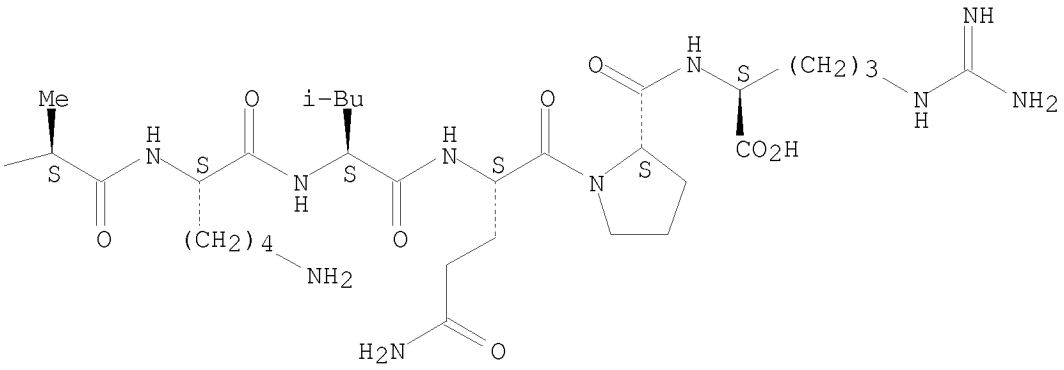

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4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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                (321975-89-7/RN)

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L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   321975-89-7  REGISTRY
CN   L-Arginine, glycyl-L-seryl-L-norleucyl-L-phenylalanyl-L-leucyl-L-seryl-L-
     prolyl-L-α-glutamyl-L-histidyl-L-glutaminyl-L-arginyl-L-valyl-L-
     glutaminyl-L-glutaminyl-L-arginyl-L-lysyl-L-α-glutamyl-L-seryl-L-
     lysyl-L-lysyl-L-prolyl-L-prolyl-L-alanyl-L-lysyl-L-leucyl-L-glutaminyl-L-
     prolyl- (9CI)  (CA INDEX NAME)
FS   PROTEIN SEQUENCE; STEREOSEARCH
SQL  28
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 type            ------ location ------         description
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SEQ      1 GSXFLSPEHQ RVQQRKESKK PPAKLQPR
MF   C144 H241 N47 O40
SR   CA
LC   STN Files:   CA, CAPLUS, USPATFULL
DT.CA  CAplus document type:  Journal; Patent
RL.P   Roles from patents:  BIOL (Biological study); PREP (Preparation); PRP
       (Properties); USES (Uses)
RL.NP  Roles from non-patents:  BIOL (Biological study); PRP (Properties)
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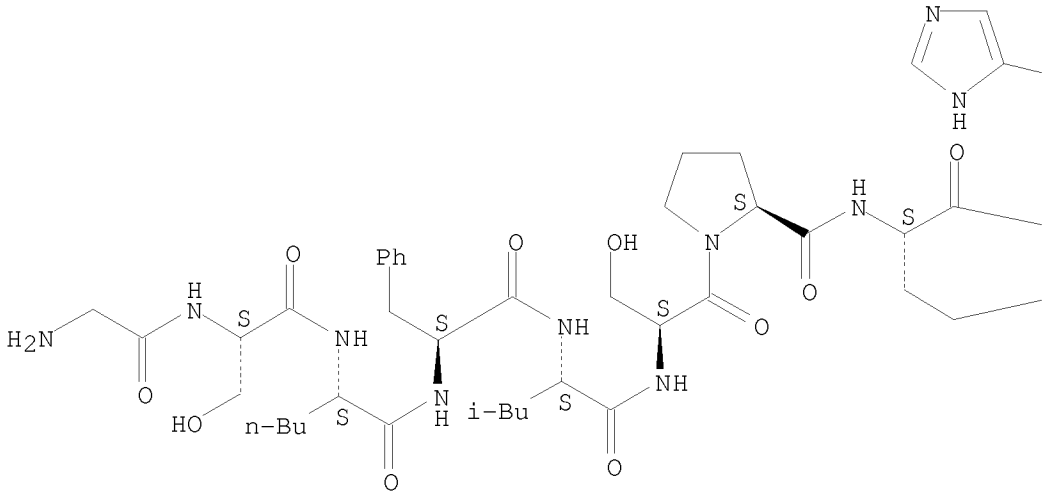
Absolute stereochemistry.

PAGE 1-A



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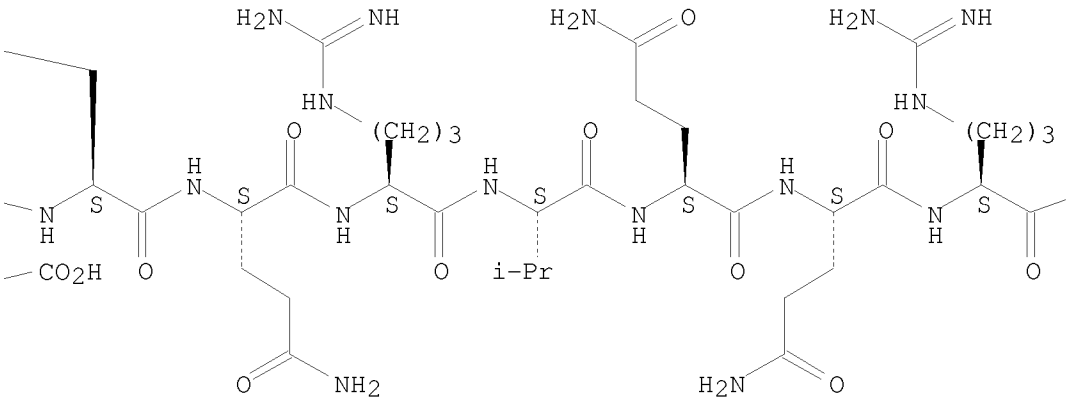

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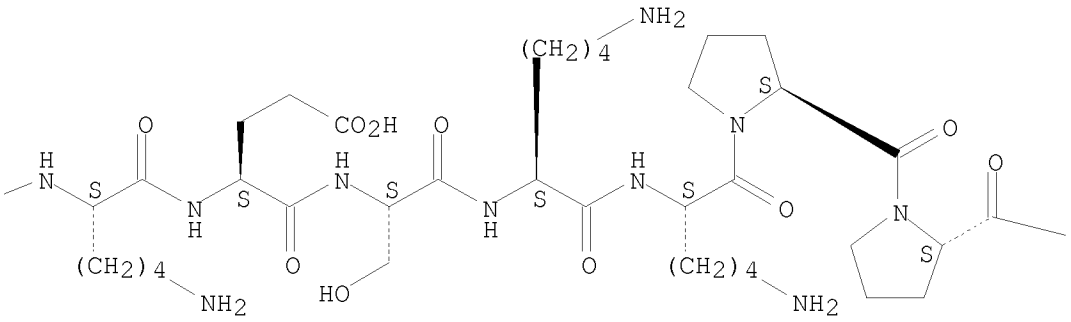

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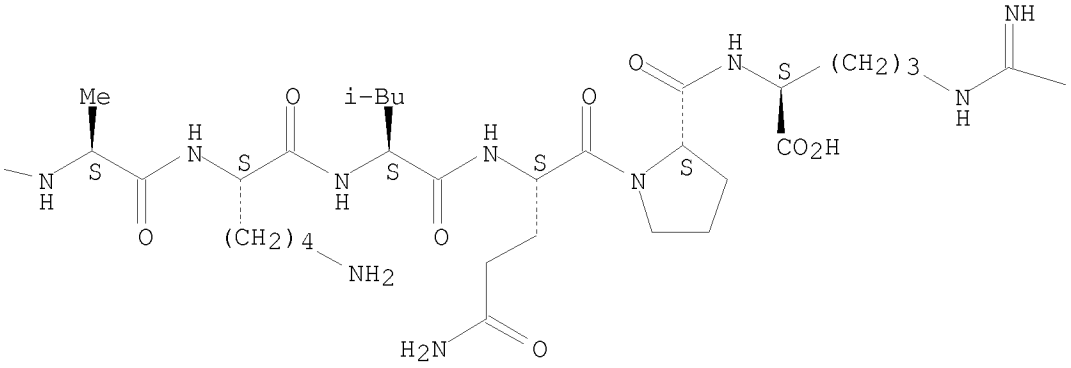

PAGE 1-E

NH2

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

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2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 313951-65-4 or 313951-67-6
1 313951-65-4
(313951-65-4/RN)
1 313951-67-6

(313951-67-6/RN)
L3 2 313951-65-4 OR 313951-67-6

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YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L3 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2009 ACS on STN
RN ***313951-67-6*** REGISTRY
CN L-Glutamine, glycyl-L-seryl-3-[(1-oxooctyl)amino]-L-alanyl-L-phenylalanyl-L-leucyl-L-seryl-L-prolyl-L-α-glutamyl-L-histidyl-L-glutaminyl-L-arginyl-L-valyl-L-glutaminyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 4: PN: WO0192292 SEQID: 3 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 14
NTE modified (modifications unspecified)

| type | ------ location ------ | | description |
|---|---|---|---|
| uncommon | Dpr-3 | - | - |
| modification | Dpr-3 | - | 1-oxooctyl<Oct> |

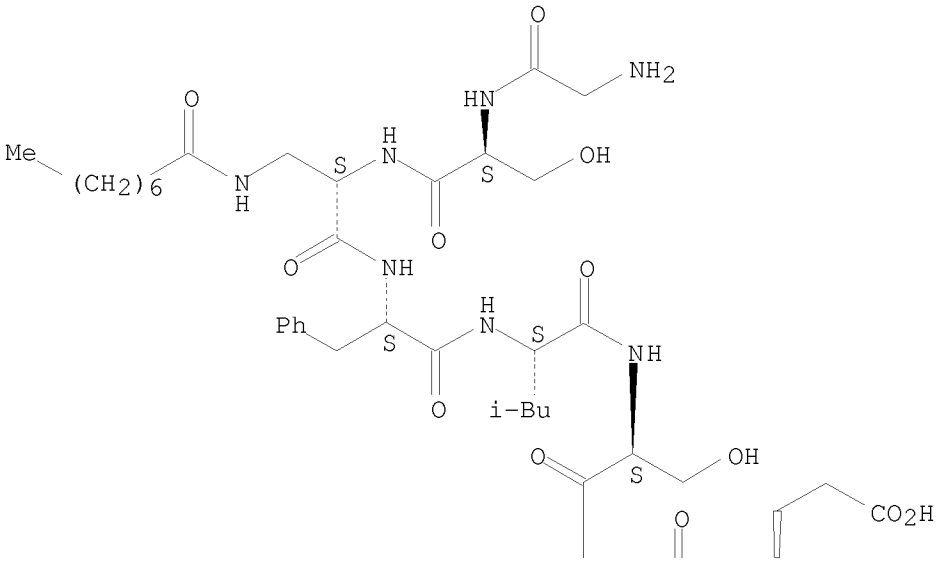
PATENT ANNOTATIONS (PNTE):

| Sequence Source | Patent Reference |
|---|---|
| Not Given | WO2001092292 claimed SEQID 3 |

SEQ 1 GSXFLSPEHQ RVQQ
MF C76 H121 N23 O23
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); PROC (Process); PRP (Properties)

Absolute stereochemistry.

PAGE 1-A



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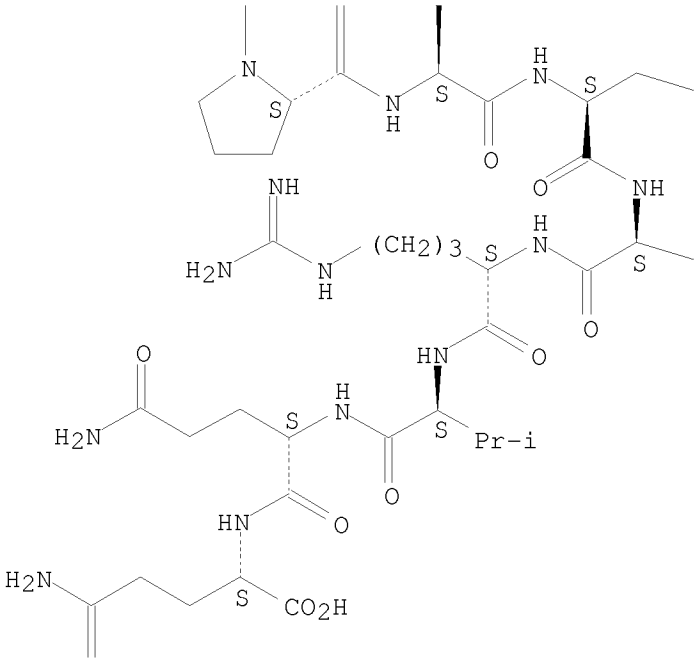

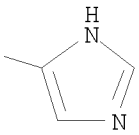

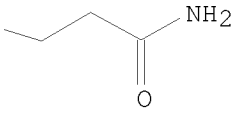



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2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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OTHER NAMES:
CN 19: PN: WO0192292 SEQID: 18 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 28
NTE modified (modifications unspecified)

| type | ------ location ------ | | description |
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| uncommon | Dpr-3 | - | - |
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PATENT ANNOTATIONS (PNTE):

| Sequence Source | Patent Reference |
|---|---|
| Not Given | WO2001092292 claimed SEQID 18 |

SEQ 1 GSXFLSPEHQ RVQQRKESKK PPAKLQPR

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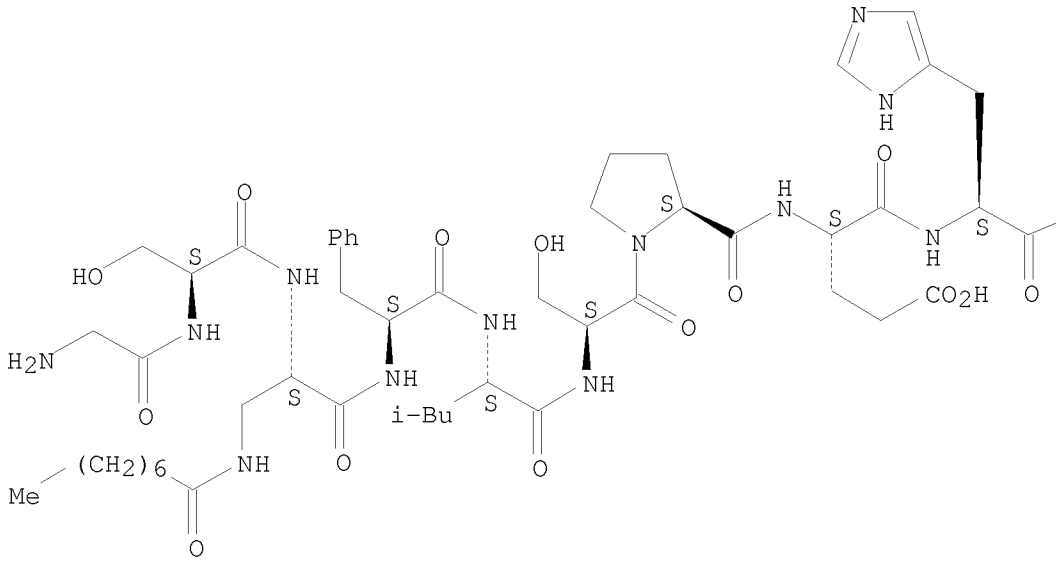
MF C149 H250 N48 O41
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); PROC (Process); PRP (Properties)

Absolute stereochemistry.

PAGE 1-A



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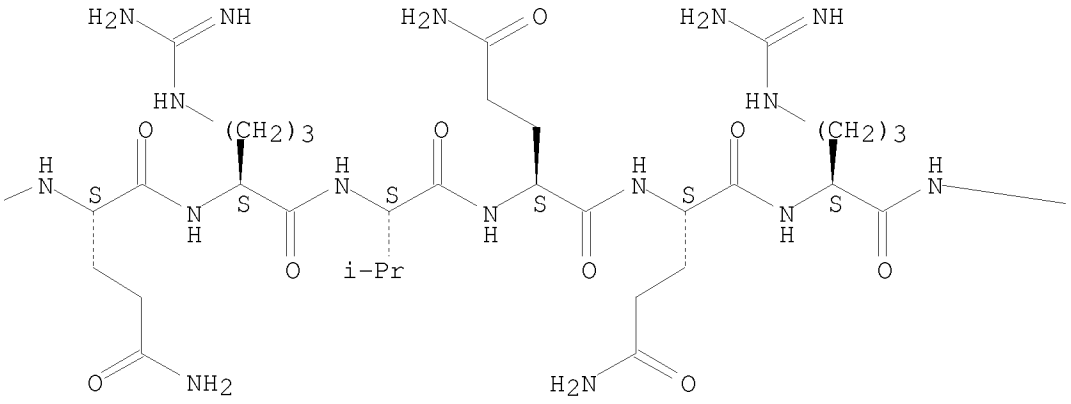

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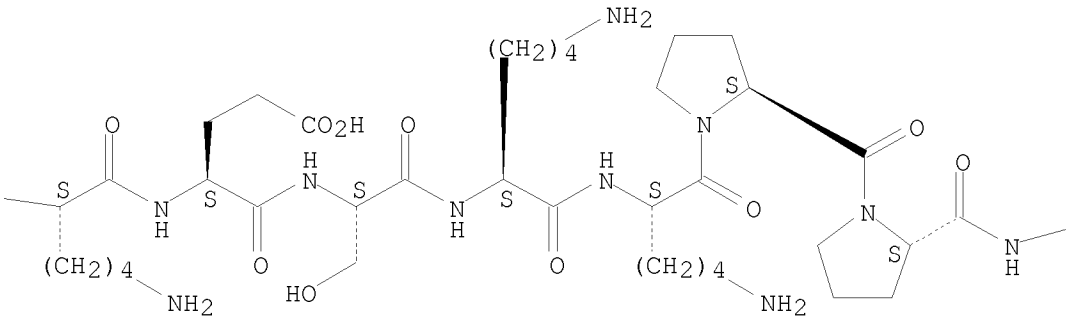

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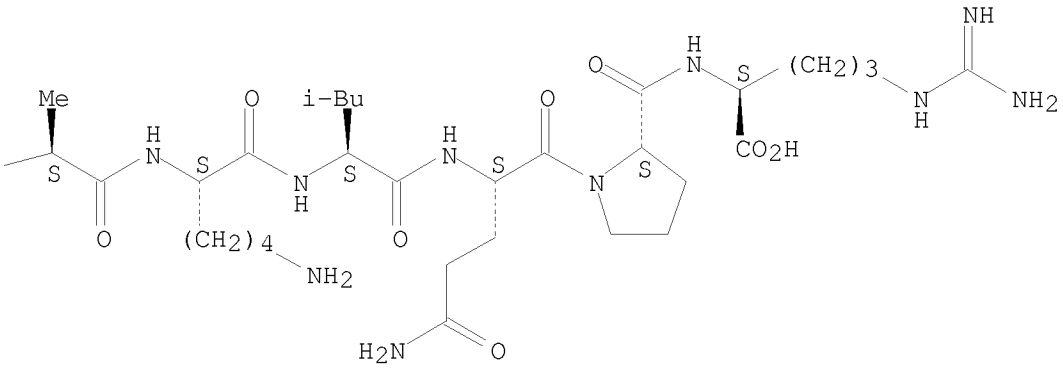

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CN GenBank AAN16215 (Translated from: GenBank AF454389)
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**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties)
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2009 ACS on STN
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OTHER NAMES:
CN 44: PN: WO2008136511 SEQID: 44 unclaimed protein
CN Ghrelin (Carassius auratus)
FS PROTEIN SEQUENCE; STEREOSEARCH
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PATENT ANNOTATIONS (PNTE):

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LC STN Files: CA, CAPLUS, TOXCENTER
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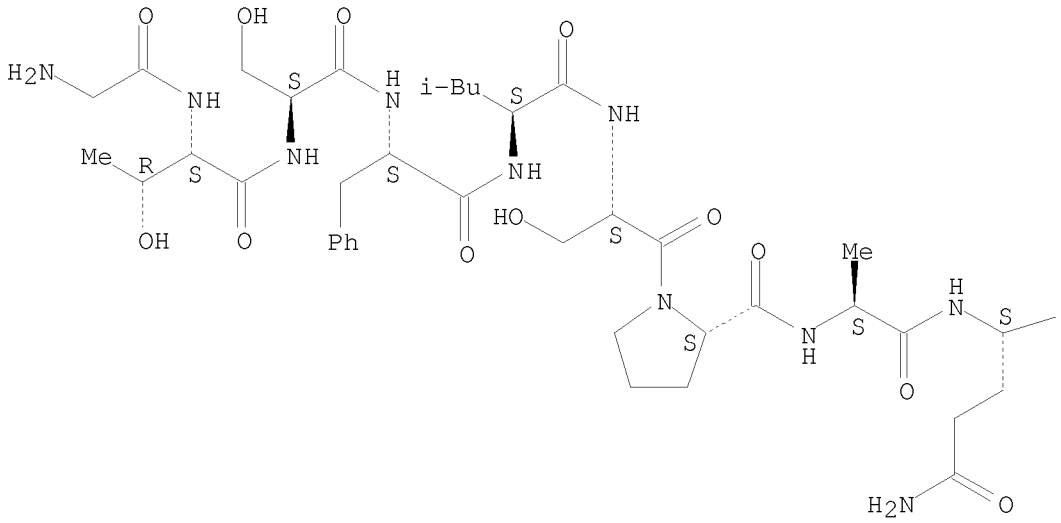
RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties)

Absolute stereochemistry.

PAGE 1-A



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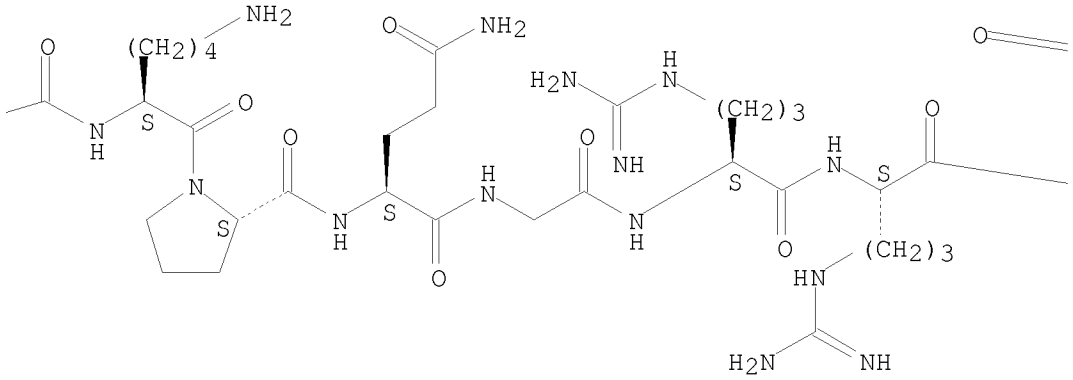

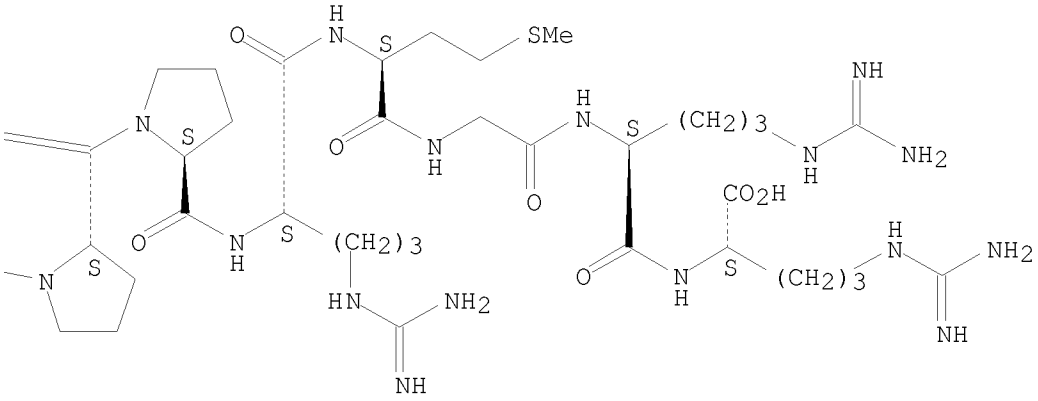

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